Traci M.T. Hall, Ph.D.

Epigenetics and Stem Cell Biology Laboratory
National Institute of Environmental Health Sciences
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Education

Johns Hopkins University School of Medicine, Baltimore, MD
Ph.D., Department of Pharmacology and Molecular Sciences, November 1992,
"The Immune-Dependent Action of Praziquantel: Molecular Characterization of a *Schistosoma mansoni* Target Antigen"

University of California, Los Angeles
B.S. in Biochemistry, June 1986

Brief Chronology of Employment

Senior Investigator (Tenured), Epigenetics and Stem Cell Biology Laboratory, National Institute of Environmental Health Sciences, National Institutes of Health, October 2014-present: Leader of the Macromolecular Structure Group. Structural and biochemical studies of macromolecules involved in RNA regulation.

Chief (Acting), Laboratory of Structural Biology, National Institute of Environmental Health Sciences, National Institutes of Health, October 2012-October 2014.

Senior Investigator (Tenured), Laboratory of Structural Biology, National Institute of Environmental Health Sciences, National Institutes of Health, December 2004-October 2014: Leader of the Macromolecular Structure Group. Structural and biochemical studies of macromolecules involved in RNA regulation.

Tenure-Track Investigator, Laboratory of Structural Biology, National Institute of Environmental Health Sciences, National Institutes of Health, April 1998 – December 2004

Postdoctoral Research Fellow, Department of Biophysics and Biophysical Chemistry, Johns Hopkins University School of Medicine, September 1994 – March 1998. Advisor: Daniel Leahy, Ph.D. Structural studies of Hedgehog proteins.

American Association for the Advancement of Science (AAAS), Science, Engineering and Diplomacy Fellow, September 1992 - August 1994.

Ph.D. Candidate, Department of Pharmacology and Molecular Sciences, Johns Hopkins University School of Medicine, September 1986 -August 1992. Dissertation advisor: Mette Strand, Ph.D. Molecular characterization of a 200-kDa *Schistosoma* surface protein target of antibodies that act in synergy with the drug, praziquantel.

Honors and Awards

NIH Office of the Director Honor Award (2018)
Faculty of 1000, Structure: RNA section (2017-present)
Faculty of 1000, Control of Gene Expression section (2011-2013)
NIH Senior Biomedical Research Service (2008-2015)
NIH Merit Award (2005)
NIH Director's Award (2004)
Albert Lehninger Award for Postdoctoral Research, Johns Hopkins University (1997)

Individual Postdoctoral National Research Service Award (1996-98)
National Science Foundation Graduate Fellowship (1987-90)

Peer-Reviewed Publications

Full list of published work (ORCID: 0000-0001-6166-3009, ResearcherID: F-5849-2019): http://www.ncbi.nlm.nih.gov/myncbi/browse/collection/45577310/?sort=date&direction=descending

Mass spectrometric identification of candidate RNA-binding proteins associated with Transition Nuclear Protein mRNA in the mouse testis (2019) Bart T. Phillips, Jason G. Williams, Dustin T. Atchley, Xiaojiang Xu, Jianliang Li, Andrea L. Adams, Katina L. Johnson, Traci M. Tanaka Hall, ***Scientific Reports***, 9:13618, PMCID: PMC6754440.

A crystal structure of a collaborative RNA regulatory complex reveals mechanisms to refine target specificity (2019) Chen Qiu, Vandita D. Bhat, Sanjana Rajeev, Chi Zhang, Alexa E. Lasley, Robert N. Wine, Zachary T. Campbell*, and Traci M. Tanaka Hall*, ***eLife***, 8: e48968, PMCID: PMC6697444. NIEHS DIR Paper of the Month. *Joint corresponding authors.

Distinct RNA-binding modules in a single PUF protein cooperate to determine RNA specificity (2019) Chen Qiu, Robert C. Dutcher, Douglas F. Porter, Yoav Arava, Marvin Wickens,* Traci M. Tanaka Hall*, ***Nucleic Acids Research***, 47:8770–8784. NIEHS DIR Paper of the Month and Paper of the Year. *Joint corresponding authors.

Engineering a conserved RNA regulatory protein repurposes its biological function *in vivo* (2019) Vandita D. Bhat[#], Kathleen L. McCann[#], Yeming Wang, Dallas R. Fonseca, Tarjani Shukla, Jacqueline C. Alexander, Chen Qiu, Marvin Wickens, Te-Wen Lo, Traci M. Tanaka Hall*, Zachary T. Campbell*, ***eLife***, 8, PMCID: PMC6351103. [#]Joint first authors, *Joint corresponding authors.

U7 snRNP is recruited to histone pre-mRNA in a FLASH-dependent manner by two separate regions of the stem-loop binding protein (2017) Aleksandra Skrajna, Xiao-Cui Yang, Katarzyna Bucholc, Jun Zhang, Traci M. Tanaka Hall, Michal Dadlez, William F. Marzluff, and Zbigniew Dominski, ***RNA***, 23:938-951, PMCID: PMC5385160.

The *Drosophila* hnRNP F/H Homolog Glorund Uses Two Distinct RNA-binding Modes to Diversify Target Recognition (2017) Joel V. Tamayo[#], Takamasa Teramoto[#], Seema Chatterjee, Traci M. Tanaka Hall*, and Elizabeth R. Gavis*, ***Cell Reports***, 19:150-161, PMCID:PMC5392723, NIEHS DIR Paper of the Month. [#]Joint first authors, *Joint corresponding authors.

Structural analysis reveals the flexible C-terminus of Nop15 undergoes rearrangement to recognize a pre-ribosomal RNA folding intermediate (2017) Jun Zhang, Lauren E. Gonzalez, and Traci M. Tanaka Hall, ***Nucleic Acids Research,*** doi: 10.1093/nar/gkw961, PMCID: 5389651, NIEHS DIR Paper of the Month.

Nop9 is a PUF-like protein that prevents premature cleavage to correctly process pre-18S rRNA (2016) Jun Zhang, Kathleen L. McCann, Chen Qiu, Lauren E. Gonzalez, Susan J. Baserga*, Traci M. Tanaka Hall*. ***Nature Communications***, 7:13085, PMCID: PMC5062617, NIEHS DIR Paper of the Month and Year. *Joint corresponding authors.

Drosophila Nanos acts as a molecular clamp that modulates the RNA-binding and repression activities of Pumilio (2016) Chase A. Weidmann, Chen Qiu, Rene M. Arvola, Tzu-Fang Lou, Jordan Killingsworth, Zachary T. Campbell, Traci M. Tanaka Hall*, Aaron C. Goldstrohm*, ***eLife***, 5:e17096, PMCID: PMC4995099. [#]Joint first authors, *Joint corresponding authors.

The molecular basis for ANE syndrome revealed by the large ribosomal subunit processome interactome (2016) Kathleen L. McCann, Takamasa Teramoto, Jun Zhang, Traci M. Tanaka Hall*, Susan J. Baserga,

eLife, 5:e16381, PMCID: PMC4859800. *Joint corresponding authors.

RNA regulatory networks diversified through curvature of the PUF protein scaffold (2015) Daniel Wilinski, Chen Qiu, Christopher P. Lapointe, Markus Nevil, Zachary T. Campbell, Traci M. Tanaka Hall, and Marvin Wickens, ***Nature Communications***, 6:8213, PMCID PMC4570272.

A divergent Pumilio repeat protein family for pre-rRNA processing and mRNA localization (2014) Chen Qiu, Kathleen L. McCann, Robert N. Wine, Susan J. Baserga*, and Traci M. Tanaka Hall*, ***Proceedings of the National Academy of Sciences, USA***, 111:18554-18559, PMCID PMC4284587, NIEHS DIR Paper of the Month. *Joint corresponding authors.

Molecular mechanisms for the regulation of histone mRNA stem-loop-binding protein by phosphorylation (2014) Jun Zhang, Dazhi Tan, Eugene F. DeRose, Lalith Perera, Zbigniew Dominski, William F. Marzluff, Liang Tong, Traci M. Tanaka Hall, ***Proceedings of the National Academy of Sciences, USA***, 111:E2937-E2946, PMCID PMC4115514, NIEHS DIR Paper of the Month.

Patterns and plasticity in PUF RNA interactions enable recruitments of multiple PUF proteins through a single site (2012) Cary T. Valley, Douglas F. Porter, Chen Qiu, Zachary T. Campbell, Traci M. Tanaka Hall, and Marvin Wickens, ***Proceedings of the National Academy of Sciences, USA***, 109:6054-6059, PMCID PMC3341033.

Divergence of Pumilio/*fem-3* mRNA binding factor (PUF) protein specificity through variations in an RNA-binding pocket (2012) Chen Qiu, Aaron Kershner, Yeming Wang, Cynthia P. Holley, Daniel Wilinski, Sunduz Keles, Judith Kimble, Marvin Wickens, and Traci M. Tanaka Hall, ***Journal of Biological Chemistry***, 287:6949-6957, PMCID PMC3307254.

Structural basis for an inositol pyrophosphate kinase surmounting phosphate crowding (2012) Huanchen Wang, J.R. Falck, Traci M. Tanaka Hall, and Stephen B. Shears, ***Nature Chemical Biology***, 8:111–116, PMCID PMC3923263, NIEHS DIR Paper of the Month.

Specific and modular binding code for cytosine recognition in Pumilio/FBF (PUF) RNA-binding domains (2011) Shuyun Dong, Yang Wang, Caleb Cassidy-Amstutz, Gang Lu, Rebecca Bigler, Mark R. Jezyk, Chunhua Li, Traci M. Tanaka Hall, and Zefeng Wang, ***Journal of Biological Chemistry***, 286:26732–26742 (JBC Paper of the Week), PMCID PMC3144504.

Phosphate and R2D2 restrict the substrate specificity of Dicer-2, an ATP-driven ribonuclease (2011) Elif Sarinay Cenik, Ryuya Fukunaga, Gang Lu, Robert Dutcher, Yeming Wang, Traci M. Tanaka Hall, and Phillip D. Zamore, ***Molecular Cell***, 42:172-184, PMCID PMC3115569.

Alternate modes of cognate RNA recognition by PUMILIO proteins (2011) Gang Lu and Traci M. Tanaka Hall, ***Structure***, 19:361-367, PMCID PMC3063405, NIEHS DIR Paper of the Month.

Stacking interactions in PUF-RNA complexes (2011) Yvonne Y. Koh, Yeming Wang, Chen Qiu, Laura Opperman, Leah Gross, Traci M. Tanaka Hall*, and Marvin Wickens,* ***RNA***, 17:718-727, PMCID PMC3062182. *Joint corresponding authors.

Solution structure of the Drosha double-stranded RNA-binding domain (2010) Geoffrey A. Mueller[#], Matthew T. Miller[#], Eugene F. DeRose, Mahua Ghosh, Robert E. London, and Traci M. Tanaka Hall, ***Silence***, 1:2, PMCID PMC2836000. [#]Joint first authors.

A 5′ cytosine binding pocket in Puf3p specifies regulation of mitochondrial mRNAs (2009) Deyu Zhu, Craig R. Stumpf, Joseph M. Krahn, Marvin Wickens, and Traci M. Tanaka Hall, ***Proceedings of the National Academy of Sciences, USA***, 106:20192-20197, PMCID PMC2787145.

Structural basis for specific recognition of multiple mRNA targets by a PUF regulatory protein (2009) Yeming Wang, Laura Opperman, Marvin Wickens, and Traci M. Tanaka Hall, ***Proceedings of the National Academy of Sciences, USA***, 106:20186-20191, PMCID PMC2787170.

Engineering splicing factors with designed specificities (2009) Yang Wang, Cheom-Gil Cheong, Traci M. Tanaka Hall, and Zefeng Wang, ***Nature Methods***, 6:825-830, PMCID PMC2963066.

Basis of altered RNA-binding specificity by PUF proteins revealed by crystalstructures of yeast Puf4p (2008) Matthew T. Miller, Joshua J. Higgin and Traci M. Tanaka Hall, ***Nature Structural and Molecular Biology***, 15:397-402, PMCID PMC2802072.

Engineering RNA Sequence Specificity of Pumilio Repeats (2006) Cheom-gil Cheong and Traci M. Tanaka Hall, ***Proceedings of the National Academy of Sciences, USA***, 103:13635-13639, PMCID PMC1564246.

Evolution from DNA to RNA recognition by the bI3 LAGLIDADG maturase (2005) Antonella Longo, Christopher W. Leonard, Gurminder S. Bassi, Daniel Berndt, Joseph M. Krahn, Traci M. Tanaka Hall*, and Kevin M. Weeks, ***Nature Structural and Molecular Biology***, 12:779-787 *Joint corresponding authors.

Size selective recognition of siRNA by an RNA silencing suppressor (2003) Jeffrey M. Vargason, György Szittya, József Búrgyan, and Traci M. Tanaka Hall, ***Cell***, 115:799-811.

Modular recognition of RNA by a human Pumilio-homology domain (2002) Xiaoqiang Wang, Juanita McLachlan, Phillip D. Zamore, and Traci M. Tanaka Hall, ***Cell***, 110:501-512.

Crystal structure of a Pumilio homology domain (2001) Xiaoqiang Wang, Phillip D. Zamore, and Traci M. Tanaka Hall, ***Molecular Cell***, 7:855-865.

Structural basis for recognition of AU-rich element RNA by the HuD protein (2001) Xiaoqiang Wang and Traci M. Tanaka Hall, ***Nature Structural Biology***, 8:141-145.

Sonic hedgehog protein signals not as a hydrolytic enzyme but as an apparent ligand for Patched (1999) Naoyuki Fuse, Tapan Maiti, Baolin Wang, Jeffery A. Porter, Traci M. Tanaka Hall, Daniel J. Leahy, and Philip A. Beachy, ***Proceedings of the National Academy of Sciences, USA***, 96:10992-10999.

Crystal structure of a Hedgehog autoprocessing domain: Homology between Hedgehog and self-splicing proteins (1997) Traci M. Tanaka Hall, Jeffery A. Porter, Keith E. Young, Eugene V. Koonin, Philip A. Beachy, and Daniel J. Leahy, ***Cell***, 91:85-97.

A potential catalytic site revealed by the 1.7 Å crystal structure of the amino-terminal signalling domain of Sonic hedgehog (1995) Traci M. Tanaka Hall, Jeffery A. Porter, Philip A. Beachy, and Daniel J. Leahy, ***Nature***, 378:212-216.

Schistosoma mansoni: Molecular cloning and sequencing of the 200-kDa chemotherapeutic target antigen (1995) Traci M. Tanaka Hall, Gerald T. Joseph, and Mette Strand, ***Experimental Parasitology***, 80:242-249.

Schistosoma: A 200-kDa chemotherapeutic target antigen is differentially localized in African vs. Oriental species (1993) Traci M. Tanaka, Amy P.N. Skubitz, and Mette Strand, ***Experimental Parasitology***, 76:293-301.

Selective release of a glycosylphosphatidylinositol-anchored antigen from the surface of *Schistosoma mansoni* (1991) Samir Y. Sauma, Traci M. Tanaka, and Mette Strand, ***Molecular and Biochemical Parasitology***, 46:73-80.

Effects of hemorrhagic serum on interleukin-2 generation and utilization (1988) Edward Abraham, Traci Tanaka, and Yi-Han Chang, ***Critical Care Medicine***, 16:307-311.

Invited Methods and Review Articles

Preparation of cooperative RNA recognition complexes for crystallographic structural studies (2019) Chen Qiu, Aaron C. Goldstrohm, and Traci M. Tanaka Hall, ***Methods in Enzymology***, 623:1-22, PMCID: PMC6697268.

Post-transcriptional Regulatory Functions of Mammalian Pumilio Proteins (2018) Aaron C. Goldstrohm, Traci M. Tanaka Hall, and Katherine M. McKenney, ***Trends in Genetics***, 34:972-990, PMCID: PMC6251728.

Combinatorial control of messenger RNAs by Pumilio, Nanos and Brain Tumor Proteins (2017) Rene M. Arvola, Chase A. Weidmann, Traci M. Tanaka Hall, and Aaron C. Goldstrohm, ***RNA Biology***, 14:1445-1456, PMCID: PMC5785226.

Integrated analysis of RNA-binding protein complexes using in vitro selection and high-throughput sequencing and sequence specificity landscapes (SEQRS) (2017) Tzu-Fang Lou, Chase A. Weidmann, Jordan Killingsworth, Traci M. Tanaka Hall, Aaron C. Goldstrohm, Zachary T. Campbell.,***Methods***, 118-119:171-181. doi: 10.1016/j.ymeth.2016.10.001, PMCID: PMC5385160.

De-coding and re-coding RNA recognition by PUF and PPR repeat proteins (2016) Traci M. Tanaka Hall, ***Current Opinion in Structural Biology***, 36:116-21. PMCID: PMC4757904.

Expanding the RNA-recognition code of PUF proteins (2014) Traci M. Tanaka Hall, ***Nature Structural and Molecular Biology***, 21:653-655. PMID: 25093524.

Engineered proteins with Pumilio/fem-3 mRNA binding factor scaffold to manipulate RNA metabolism (2013) Yang Wang, Zefeng Wang, Traci M. Tanaka Hall, ***FEBS Journal***, 280:3755-67, PMCID PMC3768134.

Understanding and engineering RNA sequence specificity of PUF proteins (2009) Gang Lu, Stephen J. Dolgner and Traci M. Tanaka Hall, ***Current Opinion in Structural Biology***, 19:110-115, PMCID PMC2748946.

Structure and function of Argonaute proteins (2005) Traci M. Tanaka Hall, ***Structure***, 13:1403-1408.

Multiple modes of recognition of RNA by zinc finger proteins (2005) Traci M. Tanaka Hall. ***Current Opinion in Structural Biology***, 15:367-373, PMID 15963892.

SAM breaks its stereotype (2003) Traci M. Tanaka Hall, ***Nature Structural Biology***, 10:677-679.

Poly(A) tail synthesis and regulation: Recent structural insights. (2002) Traci M. Tanaka Hall, ***Current Opinion in Structural Biology***, 12:82-88.

Multiple roles of cholesterol in hedgehog protein biogenesis and signaling (1997) Philip A. Beachy, Michael K. Cooper, Keith E. Young, Doris P. von Kessler, Woo-Jin Park, Traci M.T. Hall, Daniel J. Leahy, Jeffery A. Porter, ***Cold Spring Harb Symp Quant Biol*** , 62:191-204.

Invited Lectures (selected)

National and International Meetings

Apr. 2019	NCI RNA Biology Symposium, Bethesda, MD
Feb. 2019	Keystone Symposia on RNA-Protein Interactions/Long Non-Coding RNAs: From Molecular Mechanism to Functional Genetics, Whistler, BC, Canada
June 2018	FASEB Science Research Conference on Post-transcriptional Control of Gene Expression: Mechanisms of RNA Decay, Scottsdale, AZ
June 2015	Protein-RNA: Recognition, Regulation and Prediction, Banff International Research Station, Banff, Alberta Canada
Nov. 2014	Keynote speaker, North Carolina State University Molecular Biotechnology Training Program Symposium, Raleigh, NC
Nov. 2010	EMBO Workshop, RNA Control of Cell Dynamics, Kibbutz Ein Gedi, Israel
July 2009	Annual Meeting of the Protein Society, Boston, MA
Apr. 2009	Annual Meeting of the American Society for Biochemistry and Molecular Biology, New Orleans, LA
July 2007	EMBO/FASEB Conference on "Intracellular RNA Localization and Localized Translation," Il Ciocco, Italy
Apr. 2006	Annual Meeting of the American Society for Biochemistry and Molecular Biology, San Francisco, CA
Nov. 2004	EMBO Conference on "Structures in Biology," EMBL Heidelberg, Germany
Aug. 2004	Banbury Center Conference on RNAi-Related Processes in Plants: Chromatin, Development and Defense, Cold Spring Harbor, NY
July 2004	BioScience 2004, Glasgow, UK
June 2004	Gordon Research Conference, Nucleic Acids, Newport, RI
Apr. 2004	Genetic and Environmental Mutagen Society meeting, Research Triangle Park, NC
Feb. 2004	Annual Meeting of the Biophysical Society, Baltimore, MD
Oct. 2003	Symposium on RNA Biology V: RNA, Tool and Target, Research Triangle Park, NC
Oct. 2003	NIH Research Festival, Structural Biology Mini-symposium, Bethesda, MD
Oct. 2003	19th International Congress of Biochemistry and Molecular Biology, Montreal, Canada
Sept. 2003	Structural Insights into Biological Function II, NIEHS symposium, Research Triangle Park, NC
Oct. 2001	NIH Research Festival, Regulatory RNA Mini-symposium, Bethesda, MD
Mar. 2001	University of North Carolina, School of Medicine Structural Biology and Bioinformatics conference, Chapel Hill, NC
Sept. 2000	Translational Control 2000, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY

Seminars at Universities and other Research Institutions

Jan. 2020	Emory University RNA Salon, Atlanta, GA
Jun. 2016	Biophysical Society Summer Course Reunion, Chapel Hill, NC
Apr. 2016	Department of Biological Chemistry, University of Michigan, Ann Arbor, MI
Oct. 2014	Department of Biochemistry and Biophysics, University of Rochester, Rochester, NY
Jun. 2014	Biophysical Society Summer Course Reunion, Chapel Hill, NC
Jun. 2013	Department of Molecular, Cellular and Developmental Biology, Yale University, New Haven, CT
Apr. 2013	Department of Chemistry, University of Washington, Seattle, WA
Mar. 2013	Institute for Structural Biology and Drug Discovery, Virginia Commonwealth University, Richmond, VA
Nov. 2010	University of Arkansas for Medical Sciences Career Day, Little Rock, AK
Mar. 2009	George Connell Lecture, Dept. of Biochemistry, University of Toronto, Canada

Jan. 2008	Departments of Cell Biology and Anatomy and Biochemistry and Molecular Biology, University of Miami School of Medicine, Miami, FL
Nov. 2007	Program in Structural Biology and Biophysics Distinguished Lecture, Duke University, Durham, NC
Oct. 2006	Department of Chemistry and Biochemistry, Utah State University, Logan, UT
Apr. 2005	Department of Molecular Biophysics and Biochemistry, Yale University, New Haven, CT
Jan. 2005	Department of Biology, Carnegie Mellon University, Pittsburgh, PA
Nov. 2004	Institut de Biologie Moléculaire et Cellulaire, Centre National de la Recherche Scientifique, Strasbourg, France
Oct. 2004	Department of Biochemistry, Wake Forest University School of Medicine, Winston-Salem, NC
Sept. 2004	Jenkins Biophysics Department, Johns Hopkins University, Baltimore, MD
Sept. 2004	Department of Pharmacology, University of North Carolina, Chapel Hill, NC
Sept. 2004	National Advisory Environmental Health Sciences Council meeting, NIEHS, Research Triangle Park, NC
Feb. 2004	Program in Gene Function and Expression, University of Massachusetts Medical School, Worcester, MA
Feb. 2004	Department of Molecular and Structural Biochemistry, North Carolina State University, Raleigh, NC
Nov. 2003	Plant Biology Division, Samuel Noble Foundation, Ardmore, OK
Nov. 2003	Department of Biophysics and Biophysical Chemistry, Johns Hopkins University School of Medicine, Baltimore, MD
Oct. 2003	Department of Molecular Biology, The Scripps Research Institute, La Jolla, CA
July 2003	Agricultural Biotechnology Center, Gödöllõ, Hungary
Jan. 2003	Department of Biochemistry, Duke University, Durham, NC
June 2002	NIH Structural Biology Interest group, Bethesda, MD
Oct. 2000	Department of Chemistry, University of North Carolina, Chapel Hill, NC
Oct. 1999	Department of Biochemistry, North Carolina State University, Raleigh, NC
Apr. 1999	Biogen, Inc., Cambridge, MA

Postdoctoral Fellows

Antonella Longo-Research Assistant Professor, University of North Texas
Thomas Transue-Computational Biochemist, US Environmental Protection Agency
Xiaoqiang Wang-formerly Associate Professor, Noble Foundation; currently Research Associate Professor ,University of North Texas
Jeffrey Vargason-Associate Professor, Dept of Chemistry, George Fox University
Matthew Miller-formerly Research Faculty, Rutgers University; currently Senior Principal Investigator, Eternity Bioscience
Cheom-gil Cheong-formerly Research Associate, Duke University; currently Staff Scientist, University of Texas, Austin
Joshua Higgin-Intellectual Property Attorney, RTI International
Terrie Moore-formerly Senior Protein Scientist/Study Director Manager, Bayer CropScience; currently Senior Regulatory Affairs Manager, Bayer CropScience
Cynthia Holley (5/08-7/12)-formerly Scientist II at Fuji Diosynth and Scientist II, Novavax, Tech Transfer, currently Manager, Paragon Gene Therapy
Mark Jezyk-formerly Consultant, Campbell Alliance; currently AbbVie, Senior Manager, Global Commercial Business Development & Strategy Pharmaceuticals
Yeming Wang-formerly Associate Research Scientist, Yale University; currently Scientist II, Meso Scale Diagnostics

Deyu Zhu-Associate Professor, Department of Biochemistry and Molecular Biology, Shandong University School of Medicine, Jinan, China
Gang Lu-formerly Dental student, Case Western Reserve University; currently Dentist (Private Practice), Cleveland, Ohio
Misty Balcewich Thomas-Assistant Professor, Department of Biology NC A&T University
Jun Zhang-Assistant Professor, University of Alabama at Birmingham
Takamasa Teramoto -Assistant Professor, Kyushu University, Japan
Bart Phillips-Quality Control Editor, Research Square, Durham, NC
Kathleen McCann (7/2015-present)
Andrew Sikkema (5/2017-present)
Meghan Warden (1/2019-present)

Graduate Committee membership

Alyson Hoffman, Ph.D. Candidate, Department of Biochemistry, Duke University (2015-2019)
Sujatha Jagannathan, Ph.D. Candidate, Department of Cell Biology, Duke University (2009-2013)
Adriana Vela, Ph.D. Candidate, Department of Molecular, Cellular and Developmental Biology, Yale University (2013)
Brian Farley, Ph.D. Candidate, Department of Biochemistry and Molecular Pharmacology, University of Massachusetts Medical School (2012)
Elif Sarinay Cenik, Ph.D. Candidate, Department of Biochemistry and Molecular Pharmacology, University of Massachusetts Medical School (2012)
Alla Sigova, Ph.D. Candidate, Department of Biochemistry and Molecular Pharmacology, University of Massachusetts Medical School
Cynthia Holley, Ph.D. Candidate, Department of Pharmacology, University of North Carolina, Chapel Hill
Greg Buhrman, Ph.D. Candidate, Department of Biochemistry, North Carolina State University
Karen Buchmueller, Ph.D. Candidate, Department of Chemistry, University of North Carolina, Chapel Hill

NIEHS and NIH service

2007-present	NIEHS Committee on Promotions I (tenure committee)
2007-present	NIEHS Radiation Safety committee
2014-present	NIEHS Mass Spectrometry Faculty Advisor
2016-present	NIEHS Tenure Track Investigators Review Committee
2017-present	ESCBL Postdoc Review Director
2018-present	NIEHS Mass Spectrometry Steering Committee
2006-present	NIEHS Protein Expression Advisory Committee
2017-2019	NIEHS DIR Space Resources Advisory Committee
2018-2019	NIEHS Cryo-EM Steering Committee
2018	Reviewer, NIEHS-NIDDK Joint Fellowship Program
2006, 2016	NIEHS DIR Media Facility Evaluation Group
2011-2012	NIEHS DIR Retreat planning committee
2009-2011	NIEHS Scientific Director's Advisory Council
2009-2011	NIEHS Assembly of Scientists Council (President 2010)
2006-2008	Trans-NIH IRP Imaging Initiative Implementation Committee
2007-2008	NIEHS Summers of Discovery Advisory committee
2006-2018	NIEHS Protein Microcharacterization Advisory Committee
2006-2007	NIEHS Education and Training Committee
2005	NIEHS Strategic Planning Group
2004-2005	NIEHS Assembly of Scientists Council

2002-2004	NIH Structural Biology Interest Group, Steering Committee
2001-2004	NIH Tenure Track Investigators Committee
1998-2005	NIEHS Seminars and Meetings Committee
1999-2001	NIEHS Women Scientists Assembly Council
1998-2004	NIEHS Tenure Track Investigators Assembly
1999, 2002-3	Interdisciplinary Research Award Review Committee
1999	Laboratory of Structural Biology Web Site Committee

2019	Search Committee for NIEHS Scientific Information Officer
2018	Co-Chair, NIH Stadtman Investigator RNA Biology Search Committee
2018	Search Committee for NIEHS Deputy Executive Officer
2018	Chair, Search Committee for CryoEM and Viral Vector Core Directors
2017	Search Committee for NIH Stadtman Investigators, RNA Biology
2016	Technical evaluator for Media and Glassware contract
2016	Search committee for NIEHS Director of the Center for Integrated Bioinformatics
2014-2015	Chair, Search committee for NIEHS Scientific Information Officer
2014	Search committee for NIEHS Tenure-track and Tenured investigators in Cell Signaling, Neurobiology, and Reproductive or Developmental Biology
2013	Search committee for NIH Stadtman Investigators, Developmental Biology and Neurodevelopment
2013	Review panel for Supervisory Program Specialist, Office of the NIEHS Scientific Director
2012	Search committee for NIH Stadtman Investigators, Molecular Biology and Biochemistryn
2011	Search committee for NIEHS Bioinformatics Manager
2011	Search committee for NIEHS Executive Officer
2009-2010	Search committee for NIH Stadtman Investigators, Structural Biology
2008-2009	Chair, Search committee for Laboratory of Molecular Carcinogenesis tenure-track Embryonic Stem Cell Biologist
2008-2009	Search committee for tenure-track X-ray Crystallographer
2007	Search committee for Macromolecular Structure Group staff scientist
2006-2007	Search committee for NIEHS Scientific Director
2006-2007	Chair, Search committee for Gene Delivery Core Facility staff scientist
2005	Technical evaluator for Media and Glassware contract
2005	Search committee for a Molecular Toxicologist principal investigator
2004-2005	Search committee for Laboratory of Molecular Carcinogenesis tenure-track investigator
2004-2005	Search committee for a Computational Chemistry staff scientist
2002, 2004	Search committee for a Mass Spectrometry staff scientist
2002	Search committee for a Protein Expression Core staff scientist
2001-2002	Search committee for a tenure-track X-ray Crystallographer
2001	Search committee for an NMR staff scientist

Professional Service

Steering committee member, RNA Society of North Carolina, 2004-present
Member, Duke-UNC RNA Center, 2007-present
Session Chair, RNA Society Annual Meeting 2020, Vancouver, Canada
Session Chair, RNA, Tool and Target 2019, symposium sponsored by the RNA Society of NC
Co-organizer, RNA, Tool and Target 2017, symposium sponsored by the RNA Society of NC
Co-organizer, Carolina Biophysics Symposium 2016, 2018
Member, American Society for Biochemistry and Molecular Biology Meetings Committee, 2008-2011
Co-chair, RNA, Tool and Target 2009, symposium sponsored by the RNA Society of NC

Program Planning Committee, American Society for Biochemistry and Molecular Biology (ASBMB) Annual Meeting 2009
Co-organizer, RNA, Tool and Target 2007, symposium sponsored by the RNA Society of NC
Co-organizer, RNA, Tool and Target 2005, symposium sponsored by the RNA Society of NC
Session Chair, Keystone Meeting on RNAi and related pathways, Vancouver, Canada, January 2006
Session Chair, Mid-Atlantic Protein Crystallography Workshop, Johns Hopkins Univ., June 2004
Co-organizer, Structural Insights into Biological Function II, NIEHS, September 23, 2003
Co-organizer, 31st Mid-Atlantic Protein Crystallography Workshop, Duke University, May 2003

Reviewer for ACS Chemical Biology, Biophysical Journal, Cell, Cell Reports, Current Biology, eLife, EMBO Journal, EMBO Reports, FEBS Journal, Genes and Development, Journal of the American Chemical Society, Journal of Biological Chemistry, Journal of Molecular Biology, Journal of Virology, Molecular and Cellular Biology, Molecular Cell, Molecular Microbiology, Nature, Nature Chemical Biology, Nature Methods, Nature Structural and Molecular Biology, Nucleic Acids Research, Proteins: Structure, Function and Genetics, Public Library of Science-Biology, Public Library of Science-Genetics, RNA, Science, Structure, Trends in Cell Biology